

**OBITUARY:  
JAMES WILSON TILDEN (1904–1988)**

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James Wilson “Bill” Tilden, entomologist, lepidopterist, naturalist, professor emeritus at San Jose State University, died on 27 Dec 1988, four days before his 84th birthday, in San Jose, California, of injuries resulting from a fall at his home. Memorial services were held at the Methodist Church in Philo, California, on 27 May 1989, and his ashes were buried at Philo in the Ruddock family cemetery.

Bill Tilden is known to many through his research and publications on Lepidoptera and ecology, including the books *Butterflies of the San Francisco Bay Region* (Tilden 1965), *A Field Guide to Western Butterflies* (Tilden & Smith 1986), and *California Butterflies* (Garth & Tilden 1986); through teaching for 22 years at San Jose State University; and through his membership in many societies, including the Pacific Coast Entomological Society. He was a member of this society for 49 years—elected to membership at the 158th meeting on 30 Sep 1939—and served as president in 1960. Several articles have been published on Bill’s life (Anonymous 1989; Helfer 1989; Moreno 1989; Opler & Smith 1990; Smith 1990a, b), and this article complements information given in the others.

Bill Tilden was born 31 Dec 1904 in a shake cabin constructed by his father in the hills above Philo and Anderson Valley, in Mendocino County, California. He was the second of four children (he had an older sister and two younger brothers) of Thomas Jefferson Tilden (6 Jul 1871–3 Jun 1945) and Charlotte Almira Tilden, née Ruddock (13 Apr 1887–7 Apr 1966).

Bill’s grandfather, James Wilson Tilden (17 Sep 1827–2 Nov 1878), a mate on a sailing ship, jumped ship in San Francisco to join in the Gold Rush. His grandmother, Susan Dickerson Tilden (26 Jan 1844–6 Mar 1875), died at the early age of 31, leaving her husband with three small children to raise. Upon the death of Bill’s grandfather, three years later in a boating accident in Sacramento, the orphaned children were supported by the Independent Order of the Odd Fellows.

Bill’s father, a lumberman and carpenter, was born in Shingle Springs, in the foothills of El Dorado County, California. He ran away from his foster home when he was 14 and supported himself thereafter by his own resources. He worked near Philo lumbering in the redwood forests with oxen teams. It was here that he met Bill’s mother, the youngest daughter of Albert G. Ruddock (1839–1895), and Permelia Curtis Ruddock (1846–1932). Albert Ruddock was a road supervisor and the first postmaster of Philo. Bill’s father and mother were engaged to be married for seven years while his father acquired the land and built his cabin. They were married on 15 Aug 1900.

Bill’s family moved from Philo in 1906, following the death, from diphtheria, of his sister, Naomi Alice (1902–1905), just before her fourth birthday. This move was not financially advantageous to the family but was necessitated by the grief



Figures 1–5. Figure 1. Thomas Jefferson Tilden, ca. 1900. Figure 2. Charlotte Ruddock Tilden, ca. 1900. Figure 3. Bill Tilden ten years old with two brothers—Thomas C. Tilden, four years old, and Earl R. Tilden, two years old. Figure 4. Bill Tilden, high school graduation picture, 1922. Figure 5. Bill Tilden, San Jose State College graduation picture, 1942.

of his mother, who wanted to move elsewhere because of the loss of her daughter, and concern over Bill's poor health.

Bill attended public schools in Philo, Turlock, Fresno, and Hilmar. At Hilmar, a small town located south of Turlock in Merced County, the family lived on a 20 acre ranch between Tegner and Hilmar. Bill graduated from Hilmar High School in 1922, completing his high school requirements in three years. Bill wanted, at the time of his graduation, to attend the University of California at Berkeley and to major in English Literature, but no funds were available for him to do so.

In 1923, his father purchased 86 acres of second growth redwoods in Santa Cruz, at Route 1, box 710 (now 3363 Branciforte Drive). About 10 acres were available to grow garden produce and to plant an orchard. In Santa Cruz, his father also worked as a carpenter. Bill was to make the family home his headquarters for the next 16 years, whenever he was not working elsewhere.





Figures 6–11. Figure 6. Thomas and Charlotte Tilden, at Santa Cruz ranch, 1942. Figure 7. Bill Tilden and Hazel Irene Miller Tilden, wedding day, San Francisco, California, 19 Jun 1943. Figure 8. Field day, 200th meeting of the Pacific Coast Entomological Society, Rock City, Mount Diablo, California, 18 Apr 1948. Left to right, John R. (Jack) Walker, Bill Tilden, John P. Harville, and Richard M. Bohart (photo by Edgar A. Smith). Figure 9. Vector Control Staff of Santa Clara County Health Department: back row, left to right, Edgar Smith, Robert Cunningham, Roy Eastwood, Tal Lloyd, Dean Ecke, and James St. Germaine; front row, left to right, Bill Tilden, Tom Sexton, Jerry Kraft, Bruce Eldridge, and Rocci Pisano, 1954. Figure 10. Bill Tilden with children (left to right) James, Janice and Bruce, Christmas picture, 1954 (photo by Hazel I. Tilden). Figure 11. Bill Tilden, while on Vector Control Staff of Santa Clara County Health Department, 1954.

Bill's employment at this time included working for the Southern Pacific Railroad Company in San Francisco, in canneries, and as a fruit tramp with his brothers, Tom and Earl. While following the fruit season from California to Idaho, they managed a side trip to see Yellowstone National Park. Bill belonged to the Musician's Union and played trombone in a band on the Santa Cruz Boardwalk. That also included several engagements with The Miss America pageants, and playing in San Francisco and elsewhere. He was proud of his association with jazz groups and he later reminisced of participating in a jam session after a Santa Cruz concert with Jack Teagarden, the famed trombonist. With his brother, Tom, he collected insects of all orders for L. M. McQuesten of the National Insect Company, of Davis, California. On one occasion, McQuesten loaned Bill and Tom his car so that they could collect in the Sierra Nevada for him. Tom recalls they returned by way of Madera, where they also collected insects from dead sheep. McQuesten also loaned them a 410-gauge sawed-off shotgun, so that they could shoot wild game for food. As Tom has commented, "These were the depression years and employment was hard to come by."

Bill became interested in natural history at an early age. He started an insect collection when seven years old. He also enjoyed drawing birds with crayon, and an aunt subscribed to *Bird Lore* for him. As was the custom for those who lived on farms at that time, he shot robins and squirrels for food. His early correspondents included the entomological promoter, James Sinclair of San Diego, the then Kansas lepidopterists William D. Field and Virgil F. Calkins, and the twin brothers Arthur C. and Edgar A. Smith, of Los Banos, California, in 1933. His first exchange was made with Hugh Gibbon of Miniota, Manitoba, and early exchanges were made also with Lionel Paul Grey. Bill told me that in 1927 he seriously began to study Lepidoptera, aided by the Santa Cruz resident lepidopterists Edgar A. Dodge and John P. Strohbeen. In his first publication, "Preliminary list of the butterflies and skippers of Santa Clara and Santa Cruz counties, California" (Tilden 1940), Bill acknowledged the help of Dodge, Strohbeen, Art and Ed Smith, and George S. Mansfield. Between 1940 and 1987, Bill published over 100 articles (Smith 1990b) on Lepidoptera, Coleoptera, life histories, ecology, flies of public health importance, etc. Some of these he wrote with co-authors, including John C. Downey, Carl D. Duncan, John S. Garth, James St. Germaine, David H. Huntzinger, George S. Mansfield, William A. Palmer, Ernest R. Schoening, Arthur C. Smith, and Bruce A. Tilden.

In 1938, 16 years after his graduation from Hilmar High School, and when 33 years of age, Bill enrolled at San Jose State College. This was made possible, in part, by financial support from a friend, Charles "Chas" Bowles, a retired civil engineer who lived along Indian Creek near Philo. He was a general naturalist who had an interest in birds. Bill had an avid interest in birds as well as insects, and it was evident to Bowles and others how knowledgeable Bill was, in spite of the fact that he did not have a college education. Bowles told Bill that "you simply have to go to college." Bill helped Bowles by being the driver on automobile trips, including one to the deserts of southern California and Arizona. Bowles, in turn, placed some funds in a bank account to get Bill started in college. In his freshman year at San Jose State College, Bill roomed in an apartment at 72 South 6th Street with his earlier entomological correspondents Art and Ed Smith, who were then in their senior year. It was Art and Ed Smith who earlier made arrangements for



Bill to meet Carl D. Duncan on the annual field day of the Pacific Coast Entomological Society that was held at Alum Rock Park, San Jose, on 8 Apr 1938. That was the 152nd meeting of the Society, during which year Duncan was president. On the basis of this meeting, Bill decided to attend San Jose State College.

Bill graduated in 1942 from San Jose State College, receiving a Bachelor of Science degree in Biological Sciences. This was at the height of the Second World War, and he had applied for deferment so that he might attend medical school at Stanford University. Because he did not receive word on his request, he decided to enlist in the U.S. Navy in August 1942, rather than be drafted into the Army. (Bill later received his letter of deferment when he was overseas!) After six weeks of basic training on Treasure Island in San Francisco Bay, he served as a Pharmacist's Mate on the troop evacuation ship "Bloemfontaine," in the Pacific Theater, until V-J Day in 1945. His long-time friend Art Smith, who served with an Air Force intelligence unit attached to Admiral Nimitz's headquarters (CincPac), recalls how he was usually able to meet and visit with Bill, whenever his ship docked at Pearl Harbor. Bill did some entomological collecting during his military service, but this was hampered by travel restrictions.

Bill married Hazel Irene Miller in San Francisco on 19 Jun 1943, at which time she was teaching elementary school at Tupman, in Kern County, California. Later, Hazel taught in Redwood City in order to be close to Stanford University when Bill was enrolled there. They first met, in their junior year at San Jose State College, when in an ornithology class given by Gayle Pickwell. Bill and Hazel were two of three students who made perfect scores on one of Pickwell's examinations.

On his return from military service, utilizing his "G. I. bill," Bill made arrangements to commence graduate work in the Department of Biology at Stanford University, under the guidance of Gordon Floyd Ferris. He was assigned a graduate student office in a wing of the Leland Stanford Junior Museum that served for many years as the Natural History Museum (housing primarily Botany, Entomology, and Ichthyology). Bill completed his Master of Arts degree in 1947, with the thesis topic, "The comparative morphology of the larval head in Lepidoptera" (44 pages, and 14 plates). Ferris wanted him to continue work in morphology but Bill strongly resisted. Bill was permitted to study "The insect community on *Baccharis pilularis* De Candolle," and completed a Doctoral Dissertation (Tilden 1948) of 408 pages. This was published in part in *Microentomology* (Tilden 1951b) and in additional papers (see a listing in Smith 1990b: 50–55). With the completion of his doctoral degree in 1948, Bill became a member of the staff of the Department of Biology, at the then San Jose State College (now University). He taught about 30 different courses in the 22 years before his retirement as Emeritus Professor, in June 1970. His primary assignment, however, was Entomology.

Starting in the early 1950s, Bill not only worked each summer for the Vector Control program of the Santa Clara County Health Department, which was under the management of Edgar A. Smith, but he also served as a consultant in the identification of insects and other arthropods of public health importance throughout the years.

According to C. Don MacNeill, Bill pioneered in the study of our western North American skippers. As MacNeill commented, most lepidopterists had avoided



Figures 12–17. Figure 12. 12th Annual meeting of the Lepidopterists' Society held at the Santa Barbara Museum of Natural History. Left to right, Fred T. Thorne, Charles L. Remington, John A. Comstock, and Bill Tilden (photo Santa Barbara News Press). Figure 13. Tilden family on deck of "Matsonia" leaving San Francisco, July, 1963. Figure 14. Left to right, Bill Tilden and Lloyd M. Martin, Prescott, Arizona, 30 Mar 1972 (photo by Hazel I. Tilden). Figure 15. Roy O. Kendall's Open House, San Antonio, Texas, 22 Jun 1972. Left to right, Harry K. Clench, Charles V. Covell, Jr., Kenelm W. Philip, and Bill Tilden (photo by Hazel I. Tilden). Figure 16. San Antonio, Texas, June, 1972. Left to right, Mrs. Wilbur S. McAlpine, Bill Tilden, John C. Downey, and Wilbur S. McAlpine (photo by Hazel I. Tilden). Figure 17. Lepidopterists' dinner on river boat, San Antonio, Texas, June, 1972. Left side of table, left to right—Harry K. Clench, Hazel I. Tilden, Bill Tilden, Jerry A. Powell, Mignon Bush, Don R. Davis, and Julian P. Donahue; right side of table, left to right—Madeleine Field, Lloyd M. Martin, Dorothy Martin, Stanley S. Nicolay, name unknown, and W. Donald Duckworth.



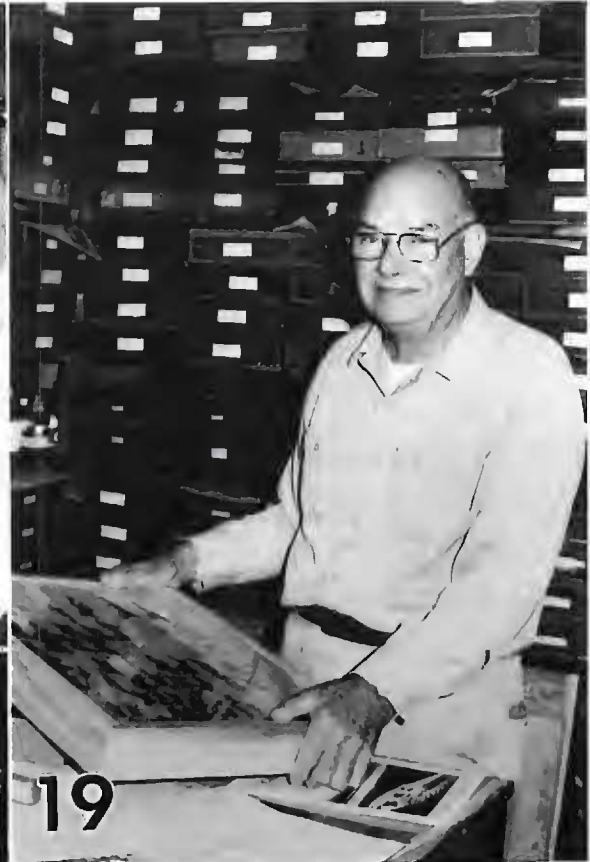
the skippers because “they were difficult to catch, difficult to spread, and difficult to classify.” This only made them more interesting to Bill, and he collected these and other butterflies extensively in California and Arizona. Because of his commitment to prepare a book on the western butterflies in the Peterson Field Guides series, Bill took many field trips from 1969 through 1986. He covered over 200,000 miles of road travel throughout western North America from Texas and the Mexican border east to Kansas and north to western Canada and Alaska (three trips).

From July to August of 1963, Bill and his family spent six weeks on a sabbatical travelling to four islands of Hawaii (Hawaii, Kauai, Maui, and Oahu). They arrived in Honolulu aboard the “Matsonia” on 20 Jul and were met by their friend Richard Kong and their landlord, Mr. Lum. The rent of \$10 per day was charged for their three bedroom house with sitting room, kitchen, washroom, two bathrooms, and included the use of a 1953 Chevrolet. Bill was able to consult with J. Linsley Gressitt and G. Allan Samuelson at the Bernice P. Bishop Museum. With Walter C. Mitchell, University of Hawaii, Alan Thistle, State Department of Agriculture, and other entomologists, he was able to observe and discuss problems concerning termites, armyworms, cactus moth (*Cactoblastis cactorum* (Berg)), southern green stink bug (*Nezara viridula* (L.)), sterilization of male fruit flies, etc. He became acquainted with new methods of biological and vector control, information that he incorporated in his course instruction at San Jose State University. He also studied the Lepidoptera of the Hawaiian Islands.

In March 1978, Bill and Hazel were able to spend two weeks in Great Britain, studying the Lepidoptera collection at the British Museum (Natural History) in London, and visiting Scotland. They were able to meet the retired Keeper of Entomology, Norman D. Riley, who had been away from the museum for months because of a serious illness but was fortunately at the museum on one of the days of their visit. This permitted them to have their copy of *A Field Guide to the Butterflies of the West Indies* autographed by Riley. Richard I. Vane-Wright made the Lepidoptera collection available for Bill’s study of certain western North American skipper types, including those of W. H. Evans.

Bill built a superb personal collection of North American butterflies, certain moth families, and favorite Coleoptera families (Buprestidae, Cerambycidae, and Meloidae). He maintained, at his home, a very carefully organized and curated collection housed in California Academy of Sciences drawers and cases, and in Schmitt-sized boxes. The development of this major collection was undertaken in a private manner without fanfare and came as a surprise to some of his students when they later learned of its size, scope, and perfection.

Of the six taxa described as new by Bill, primary types of four of them are deposited in the Academy’s collection: the holotype and allotype of *Callophrys lemberti* Tilden (CAS Entomol. Type No. 7239) (Tilden 1963: 292); the holotype and allotype of *Glaucopsyche lygdamus incognita* Tilden (CAS Entomol. Type No. 12171) (Tilden 1974: 213); the holotype and allotype of *Mitoura siva mansfieldi* Tilden (CAS Entomol. Type No. 7240) (Tilden 1951b: 96); the holotype and allotype of *Euphilotes rita pallescens* (Tilden & Downey) (CAS Entomol. Type No. 6237) (Tilden & Downey 1955: 25; as *Philotes*). The holotype of *Tharsalea arota schellbachii* (Tilden) is deposited in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (Tilden 1955: 72; as *Lycaena*), and



Figures 18–22. Figure 18. Bill Tilden's 75th Birthday party at his home in San Jose, California, 31 Dec 1979. Left to right, Paul H. Arnaud, Jr., Hugh B. Leech, Dick Mewaldt, and Bill Tilden (photo by Hazel I. Tilden). Figure 19. Bill Tilden, with drawer of Lepidoptera at his home in San Jose, California, ca. 1980 (photo by Hazel I. Tilden). Figure 20. Bill Tilden with net, Palo Alto Bay lands, California, ca. 1980 (photo by Hazel I. Tilden). Figure 21. Book signing at Book Café, Capitola, California, 12 Oct 1986. Left to right, Arthur C. Smith and Bill Tilden (photo by Hazel I. Tilden). Figure 22. Book signing at Willow Glenn Tattler, San Jose, California, 22 Nov 1986. Left to right, Madeline M. Arnaud, Paul H. Arnaud, Jr., Arthur C. Smith, Bill Tilden, John S. Garth (photo by Hazel I. Tilden).



the holotype of *Philotiella speciosa bohartorum* (Tilden) is deposited in the Los Angeles County Museum of Natural History, Los Angeles (Tilden 1968: 281; as *Philotes*).

The paratypes of butterflies contained in Bill's collection, when received by the Academy in 1989, totaled 85 specimens representing 30 species, as follows: Family HesperIIDae: 2, *Agathymus dawsoni* Harbison; 3, *Erynnis telemachus* Burns; 1, *Hesperia miriamae* MacNeill; 2, *Hesperia pahaska martini* MacNeill; 2, *Hesperia comma tildeni* H. A. Freeman; 2, *Hesperia uncas macswaini* MacNeill; 2, *Megathymus coloradensis louiseae* H. A. Freeman; 2, *Megathymus coloradensis reinthali* H. A. Freeman; 3, *Pholisora graciellae* MacNeill; and 2, *Stallingsia maculosa* (H. A. Freeman). Family Papilionidae: 1, *Papilio cresphontes pennsylvanicus* F. & R. Chermock. Family Pieridae: 2, *Colias gigantea mayi* F. & R. Chermock. Family Lycaenidae: 3, *Callophrys lemberti* Tilden; 2, *Epidemia dorcas megaloceras* Ferris; 2, *Euristrymon ontario violae* (D. Stallings & Turner); 13, *Everes comyntas texanus* R. Chermock; 2, *Glaucopsyche lygdamus jacki* D. Stallings & Turner; 4, *Mitoura siva mansfieldi* Tilden; 2, *Mitoura thornei* J. W. Brown; 4, *Philotes enoptes bayensis* (Langston); 1, *Philotes enoptes tildeni* (Langston); 11, *Euphilotes pallescens* (Tilden & Downey); 1, *Philotiella speciosa bohartorum* (Tilden); and 2, *Tharsalea arota schellbachi* (Tilden). Family Nymphalidae: 2, *Basilarchia archippus lahontani* (Herlan); 2, *Phyciodes orseis herlani* Bauer; 2, *Speyeria aphrodite manitoba* (F. & R. Chermock); 1, *Speyeria cybele pseudocarpenteri* (F. & R. Chermock); and 1, *Vanessa anabella* (Field). Family Satyridae: 6, *Enodia portlandia missarkae* (J. R. Heitzman & dos Passos). The collection also contained 12 specimens labelled as paratypes in the genera *Boloria*, *Euphyes*, and *Plebejus* that appear to be manuscript names, as they cannot be confirmed in current Lepidoptera checklists.

As commented by Helfer (1989), Bill was the first lepidopterist to investigate the occurrence of the Lotis blue (*Lycaeides idas lotis* (Lintner)) colony that was discovered south of Caspar, in Mendocino County. Bill also published on San Francisco's vanishing butterflies (1956). He knew the locality, in the Santa Cruz Mountains, where the now possibly extinct Strohbeen's parnassian (*Parnassius clodius strohbeeni* Sternitzky) occurred and encountered his first specimen there on 12 Jun 1933 (Tilden 1941). He collected only a few specimens and the two given to the Academy bear his collection dates of 21 Jun 1936 and 1 Jul 1958. The latter may be one of the last collected specimens. The Tilden bequest contained four specimens of this taxon, which Bill had earlier emphasized to me that he wanted deposited in the Academy collection (Bill had recently declined an offer of \$3,000 for these four rare specimens.)

Bill Tilden had a long association with the Department of Entomology of the California Academy of Sciences. Letters indicate that Hartford H. Keifer and Edward P. Van Duzee identified Microlepidoptera and larger moths (noctuids and geometrids) for him in 1933, and in 1936 beetles were identified by Edwin C. Van Dyke. Before his entry into military service in 1942, Bill had made an agreement with the Academy Director, Robert C. Miller, and Entomology Curator, Edward S. Ross (Tilden letters: 4 and 31 Mar 1942), for the presentation of his collection to the Academy, but there appeared to be a problem of delivery: Bill did not have transportation, Ross was about to leave for his military duty, and there was strict gasoline rationing for civilians during the war. The collection was

then stored in Santa Cruz, but unfortunately was somewhat damaged while being fumigated during his absence.

After World War II, from 1946 through 1988, Bill donated portions of his collection, totaling 35,607 specimens (27,087 Lepidoptera, 7091 Coleoptera, and 1429 miscellaneous insects and arachnids), to the Academy. Following his death, the receipt of 20,274 additional specimens of Lepidoptera (16,460 pinned and spread; 3814 papered) gives a total of 47,361 Lepidoptera received through 1991. In addition, with nearly 8000 specimens of Coleoptera still to be accessioned, the final Tilden donations will total approximately 64,000 specimens.

The California Academy of Sciences has been indeed fortunate to have such loyal support of Bill and his family for nearly half a century. Bill became a member of the California Academy of Sciences on 13 Apr 1948, at a time when there were fewer than fifteen hundred active members. He was elected a Fellow of the Academy in 1968. Bill's reprint library on Lepidoptera was donated to the Department of Entomology, California Academy of Sciences, with the stipulation that if papers were duplicate to Academy holdings they would be sent to the Department of Entomology, Bernice P. Bishop Museum. Bill's correspondence files are also stored in the Archives section in the Special Collections of the Academy's Library.

Prior to his retirement, Bill also donated about 100 drawers of Lepidoptera and miscellaneous insects, including Odonata, Diptera, and Coleoptera, to the Entomology Museum at San Jose State University (a collection that now houses about 600,000 specimens in the Carl D. Duncan Hall of Science).

Bill Tilden lived a full and active life devoted to family, friends, and institutions. He overcame the limitations of the depression years and a delayed higher education to fully dedicate his exceptional talents to teaching, researching, publishing, and collection making. Shortly after his retirement, Bill faced heart problems that included open heart surgery, valve replacement; eventually he had a pacemaker installed. Yet he did most of his extensive field collecting program for the Guides following this surgery. The development of his collection and its donation to the Academy places a responsibility on the Academy to oversee its proper storage, make it available to the scientific community, and to preserve it for use by future generations.

Bill Tilden is survived by his wife, Hazel Irene Tilden, of San Jose, California; two sons, Bruce Allen Tilden of San Jose, California, and James Wilson Tilden, Jr. of Phuket, Thailand; one daughter, Janice Elaine Tilden of Denver, Colorado; and two brothers, Thomas C. Tilden of Santa Cruz, California, and Earl R. Tilden of Dillingham, Alaska.

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